

SHOWS BRINGING OUT CAR IMPROVEMENTS

War Influence Is Apparent in Latest Auto Models.

EXPERT GIVES SUMMARY

Editor of Motor Points Out Many Betterments in Car Chassis, Bodies and Engines.

BY H. A. TARANTOUS, Managing Editor of Motor. While it is a little too early to expect the automotive engineering world to have recovered from the shock of war, which called for production rather than design, the New York and Chicago automobile shows nevertheless will give us a really good conception of what has been done to make our passenger automobiles better. Briefly, the greatest attention has been given to body design, to engines and to chassis detail, while clutches, transmissions, steering gear and axles already highly refined, have received practically no attention.

There are certain movements apparent with respect to universal joints, and to wheels, but aside from these the underlying parts of the car are as they were. This is not to say they will not be bettered in a year or so, but that there has not been the time to permit engineers to get to every part of the car.

On every hand the cost of keeping a car is spoken of more than the cost of buying. I look forward to seeing a great many small lightweight cars, such as the average man can afford to buy and, above all, to operate. Europe has more than 40 of these makes which are produced in quantity here would be the cheapest sort of cars.

Many Smaller Refinements. In looking over the new production one is impressed with the great attention to the smaller items of equipment, to such things as doors and door handles, and to the instruments and fendering. Changes of this sort are not costly and are made much more easily than those involving the making of a new, expensive die. In the desire to give the car a "homelike" appearance the body has been attacked and there is a bewildering array of "conceptions."

For the most part the designers have adhered to the basic lines shown last year in such numbers. This body has a high hood, usually with an angle at each side, the line of the angle meeting the top edge of the body. Hoods have more louvers, windshield supports are more substantial and shields are much in evidence. A few concerns have taken up small built-in side pieces attached to the windshield. This form will undoubtedly be standard equipment in a few years.

A few years ago car-makers were producing 10 per cent inclosed models and the remainder open. This was a fair average. Today the open will see at the shows, the inclosed models will constitute two-thirds of the models and in production close to 40 per cent. The sedan is the most popular of the family cars and the brougham or town car leads among the chauffeur models. It is apparent that the complete, so-called, has had a very short existence; just why it is venturing into the world seemed to serve the purpose of the coupe and at the same time possessed other advantages.

Fuel Problem Tackled. There are considerably more overhead-valve engines and those that are not new have been improved, especially so far as lubrication is concerned. Power output is greater on the average engines, though the displacement has not varied much. The fuel problem has brought about a vast number of changes in manifolding and practical every engine has some means of heating the mixture.

Some wonderful examples of advanced engine design are shown at the shows. I refer to such new practices as bearings without shims, and new designs of high-pressure oiling systems, new detail improvements in valve gear, and what cannot be seen—new metals. Most of these really new things have come as a result of war experience, and one will find that where such changes are noted it is on products that concern that were doing war work on engines. The detachable cylinder head, vacuum fuel feed, battery ignition, 4-volt separate unit starting and lighting are features that have not changed.

Aside from engine development, I believe the universal and the wheels have been given greatest consideration. There are considerably more fabric universals than before, and it looks as though this type will take the place of the all-metal joint for certain installations where the shaft angularity is not great. The show cars will for the most part be fitted with metal wheels though wood is still the standard for regular production. We can look for further development in metal wheels for passenger cars with the disc steadily gaining in favor.

SOME SCHEME, IS THIS!

SPECIAL SNOW PLOW TO KEEP SNOQUALMIE OPEN.

Anyway, That's the Plan They Are Considering in Seattle, and It May Be Good One.

SEATTLE, Wash., Dec. 20.—Plans for the maintenance of traffic over the Sunset highway and the Snoqualmie pass throughout the winter took a definite step forward last week with the presentation to the Seattle Motor Car Dealers' association of details and drawings of a machine which it is believed will do the work and at a minimum of cost.

D. L. Ellis, assistant engineer of the Great Northern Railway company, has been working on the scheme for a long time, and recently obtained from the General Electric company the blue prints and estimates of the cost of the machine which will do the snow clearing. He submitted them to the association, whose members are active supporters of the plan.

Inasmuch as the machine is new in every detail and will require the construction of special electric batteries, motors and gas engine, in addition to every detail of body and tractor rollers, it is not believed possible to have it ready this year, but the men who are advocating the scheme are going ahead with the idea of being prepared to keep the pass open during the entire winter of 1920-21.

The first snow plow will cost approximately \$10,000 and will weigh 40,000 pounds complete. It will have a separate motor for each side tractor and one for the rotary fan, according to the advance information furnished the association by Mr. Ellis. It will cut a path through four feet of snow to a width of nine feet, and do it at a four-mile clip.

Electrical experts, especially men connected with the sale and distribution of electric automobiles, are agreed that the machine, if properly constructed, would be practical. To this has been added the indorsement of good roads workers everywhere, who are desirous of seeing the pass kept open.

ESSEX SETS ROAD RECORD

NEW MARK FOR CINCINNATI TO INDIANAPOLIS RUN.

Distance of 238 Miles Is Made in Surprising Running Time of Five Hours, 50 Minutes.

A new road record for the run from Cincinnati to Indianapolis and return was established November 18 by Ted Byrne in an Essex when he made the 238 miles in the amazing running time of five hours and 50 minutes. During this time the motor was kept running continuously and the gear was never taken out of high. The car carried three passengers besides the driver and on the trip back to Cincinnati averaged 17 miles to the gallon of gasoline, according to word received here by C. L. Boss of the C. L. Boss Automobile company, distributor for the Essex.

More gasoline was used on the journey to Indianapolis as the motor was kept running during luncheon and while a wire change was being made, so that the average was cut down to 17 miles to the gallon.

The car left Cincinnati at exactly 6 o'clock in the morning, Indianapolis was reached at 9:45, 24 minutes being taken out near Connorsville for changing and mounting a punctured tire. After 11 minutes for luncheon, the return journey was started.

The roads were covered with frozen ruts and choppy hills and, to make the remarkable time achieved, Byrne had to keep the Essex up to 50 and 60 miles an hour on the open road when

ACE QUILTS AIR TO SELL TIRES

L. C. Simon, Credited With Seven Planes, Joins Firestone.

L. C. Simon, who, as a lieutenant in the 1st pursuit group, United States army aviation service, was officially credited with bringing down seven German planes, has entered upon a business career in which he can forget the thrills of flying. He is selling tires in Columbus, Ohio, his home town.

Simon, refusing to be tempted by numerous offers to give exhibition flights and several opportunities to go on the lecture platform, recently joined the sales staff of the Firestone branch in Columbus.

His decorations include the distinguished service cross and the croix de guerre.

HERE'S THE VERY LATEST IN STUDEBAKERS.



New model 20 light six sold by Oregon Motor Car company to Albert B. Ridgway. This is the first of the new models to be delivered here.

OVERLAND FOUR IN THE MOJAVE DESERT COUNTRY OF CALIFORNIA.



View on recent record-setting trip to the scenic Big Bear lake country made by Alan M. Fernald, Willis-Overland publicity director for the Pacific coast. Desert or mountains, it was all the same to the lightweight Overland with its remarkable new three-point cantilever spring suspension.

FORD MAN OPENS STREET

SHOVEL AND CAR USED TO REMOVE SNOW DRIFTS.

Manager of Portland Branch Finishes Task and Other Travelers Profit from His Enterprise.

Stephen A. Stellwagen, manager of the Ford Motor company branch, has the reputation of always putting over anything he starts to do. He did it last Wednesday in a job of street clearing that kept him busy with a shovel joined in the work of plowing a roadway through Eybbe avenue with his trusty tin lizzie. When Stellwagen came to Portland he found an attractive home out near Reed college and Wednesday morning when he started for his office he found the car buried in a snowbank that had blocked the way to the garage. So he brought a shovel from the basement and soon had the garage opened, then started to break the road with the car. It didn't work very well, but by dint of continuous shoveling and repeated attacks he put in a busy day and in the afternoon succeeded in clearing the way to Milwaukee street. Owing to his industry the way was opened for neighbors and the delivery cars and dairy deliveries on runners found one street in which they could come and go without being marooned.

FRANKLIN REAL PIONEER

CAR FIRST IN MANY FEATURES NOW GENERALLY USED.

Among Them Are the Valve-in-Head Motor, Light Weight and Six-Cylinder Engine.

What is believed to be a record in pioneering the way in the automobile industry has been achieved by the Franklin car. Many of the features of the first Franklin models are just now coming into popular usage. The Franklin company built the first four-cylinder automobile in America, the first six-cylinder car in this country and one of the first air-cooled automobile engines, the first to be used commercially.

Franklin was first to adopt scientific light weight, about which other manufacturers are only now coming to say so much. It was the first to recognize the superiority of valve-in-head construction—another feature other makers are just coming to, whereas the first Franklin, built 17 years ago, had it.

The Franklin was first to replace the jerky, uneven spark cut-out of early days with throttle control. It was first to use the float-feed carburetor, first to adopt full elliptic springs and was the first car built without radius rods and torque tubes. The laminated wood frame is still and always was an exclusive Franklin feature. Franklin was first to adopt automatic lubrication, automatic spark advance, intake yoke heater, electric carburetor primer, wick oiling and wide doors and was first to introduce the V-type windshield, a French design, in this country.

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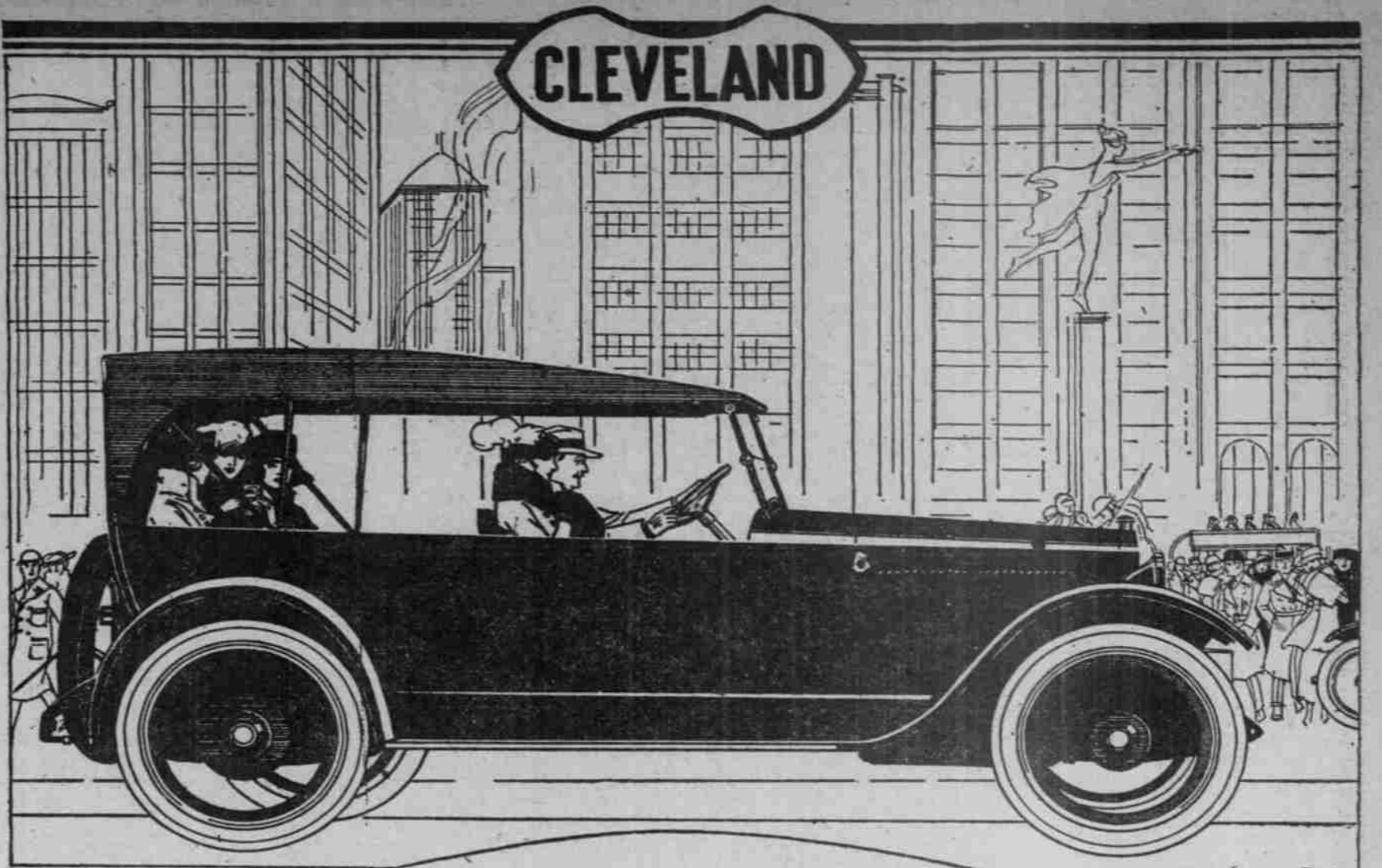
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BIG FIELD OPEN TO TRUCKS

Advent of Pneumatic Truck Tires Benefits Farmers.

The automobile lesson has been pretty well learned in its fundamental essentials, according to John W. Maguire, president of the Mid-West Rubber association, but the farmer has still to grasp all that the new means of locomotion can do for him. The automobile and the telephone have removed the isolation from which the average farmer suffered for generations," says Mr. Maguire. "But the farmer has only begun to use the automobile to the extent and in the many forms of its usefulness. It is still pretty largely a personal and family convenience on the great run of American farms. I am not speaking of tractors, either, which is a subject by itself. As a tire manufacturer, I do not presume to go into that question." Mr. Maguire is vice-president and general manager of the Portage Rubber company.

"I want to see the farmers use trucks more—and use more trucks. With dependable pneumatic tires giving economical and satisfactory service on all styles of truck, and with trucks the ideal bridge to connect the two extremes of automobile service which he has already adopted, the tractor and the passenger car, it



A Place of Distinction for the Cleveland Six

America has given welcome, in no mistakable terms, to the new Cleveland Six. This car, sensation of the year in the world of motordom, found a place waiting for it, a place of distinction.

Indeed, it establishes its own place. For there has been no other light car of similar quality at similar price. There is no other now.

The Cleveland Six, product of men skilled in the design and building of fine cars, reflects in every detail the genius and sincerity of its makers. Underneath its beautiful body is a chassis which performs. It doesn't merely run. It's alive with power and speed.

The Cleveland Six is offered now in two open styles of unusual comfort, splendid design and excellent finish—the five-passenger touring car and three-passenger roadster.

The two handsome Cleveland closed cars, the five-passenger sedan and four-passenger coupe, will soon be ready for delivery.

MODELS AND PRICES
 Touring Car (Five Passenger) \$1385
 Sedan (Five Passenger) \$1385
 Roadster (Three Passenger) \$1385
 Coupe (Four Passenger) \$1385
 (All prices F. O. B. Factory)

TWIN STATES MOTOR CAR CO.

Distributors
 ALDER AT SIXTEENTH ST. PORTLAND.
 THE CLEVELAND AUTOMOBILE COMPANY, CLEVELAND, OHIO

\$1385

WESTCOTT

The Car with a Longer Life

Buy "Larger Six" or "Lighter Six" according to your needs—but buy WESTCOTT in either case for the sake of those many extra miles!

UNITED MOTORS COMPANY,
 Oregon Distributors
 529 Burnside Street. Portland, Oregon

REO

Vogans

Of course, you have eaten Vogans' Candies. You have stepped into your favorite confectioner's and said, "A box of Vogans"—and they delighted HER.

The success of the Vogon Candy company has been due to the ability of its management, quality of its products, judicious advertising and a maximum percentage of efficiency in every department of its business.

Not the least important item is the matter of deliveries—to maintain the highest possible service to dealers in Portland and neighboring towns.

Reliability, economy and speed are the demands to be met by their delivery equipment. With two REO three-fourths ton SPEED WAGONS all of these are accomplished in a highly satisfactory manner.

It is a significant fact that in every line of business throughout the United States where deliveries are an important factor the REO three-fourths ton SPEED WAGON is invariably represented. It may be but a single unit or, as in some instances, a fleet of forty. In Portland a department store operates a fleet of nine REO SPEED WAGONS.

It is rarely we can offer immediate deliveries—it so happens AT THIS TIME. We advise you to get your REO SPEED WAGON now, because this condition will not obtain for long.

Northwest Auto Co.
"The Line Complete"
 ALDER AT EIGHTEENTH PORTLAND, OREGON